

AD-A071 976

ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/G 4/2
19702A GSRS MISSILE NUMBER 388, ROUND NUMBER B-17.(U)
MAY 79

UNCLASSIFIED

ERADCOM/ASL-DR-1023

NL

| OF |

AD
A071 976



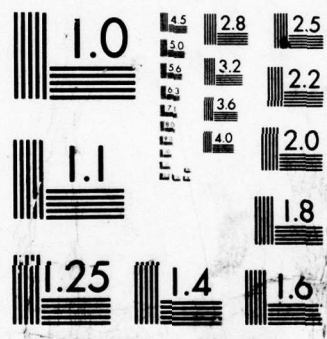
END

DATE

FILMED

8-79

DDC



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

DA071976

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1023	2. GOVT ACCESSION NO. 1 (9)	3. RECIPIENT'S CATALOG NUMBER Meteorological data rept.
4. TITLE (and Subtitle) 19702A GSRS Missile Number 388, Round Number B-17.		5. TYPE OF REPORT & PERIOD COVERED
7. AUTHOR(s) White Sands Meteorological Team		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS 12 17p.		8. CONTRACT OR GRANT NUMBER(s) DA Task 1T6657-2D126-02
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Comd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Research & Development Comd		12. REPORT DATE 30 May 1979
		13. NUMBER OF PAGES
		15. SECURITY CLASS. (of this report) UNCLASSIFIED
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
14 ERADCOM/ASL-DR-1023		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) 1. Ballistics 2. Meteorology 3. Wind		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of 19702A GSRS, Missile No. 388, Round No. B-17, are presented in tabular form.		

410 663

gmu

REPORT DOCUMENTATION PAGE	
REPORT NUMBER	DA 1053
REPORT DATE	1975
REPORT TYPE AND PERIOD	Final Report
PERFORMING ORG. REPORT NUMBER	
CONTRACT OR GRANT NUMBER	
DA Task 17053-0152-02	
PROGRAM ELEMENT, PROJECT, TASK AREA AND WORK UNIT NUMBERS	
1. AUTHOR	White Sands Meteorological Team
2. TITLE	White Sands Meteorological Team
3. CONTROLLING NUMBER	
4. PERFORMING ORG. NAME AND ADDRESS	US Army Electronics Research & Development Command Atmospheric Sciences Laboratory White Sands Test Range, New Mexico
5. PERFORMING ORG. REPORT NUMBER	
6. SECURITY CLASS. (When Data Entered)	Unclassified
7. SECURITY CLASS. (When Data Entered)	Unclassified
8. SECURITY CLASS. (When Data Entered)	Unclassified
9. SECURITY CLASS. (When Data Entered)	Unclassified
10. SECURITY CLASS. (When Data Entered)	Unclassified
11. SECURITY CLASS. (When Data Entered)	Unclassified
12. SECURITY CLASS. (When Data Entered)	Unclassified
13. SECURITY CLASS. (When Data Entered)	Unclassified
14. SECURITY CLASS. (When Data Entered)	Unclassified
15. SECURITY CLASS. (When Data Entered)	Unclassified
16. SECURITY CLASS. (When Data Entered)	Unclassified
17. SECURITY CLASS. (When Data Entered)	Unclassified
18. SECURITY CLASS. (When Data Entered)	Unclassified
19. SECURITY CLASS. (When Data Entered)	Unclassified
20. SECURITY CLASS. (When Data Entered)	Unclassified
21. SECURITY CLASS. (When Data Entered)	Unclassified
22. SECURITY CLASS. (When Data Entered)	Unclassified
23. SECURITY CLASS. (When Data Entered)	Unclassified
24. SECURITY CLASS. (When Data Entered)	Unclassified
25. SECURITY CLASS. (When Data Entered)	Unclassified
26. SECURITY CLASS. (When Data Entered)	Unclassified
27. SECURITY CLASS. (When Data Entered)	Unclassified
28. SECURITY CLASS. (When Data Entered)	Unclassified
29. SECURITY CLASS. (When Data Entered)	Unclassified
30. SECURITY CLASS. (When Data Entered)	Unclassified
31. SECURITY CLASS. (When Data Entered)	Unclassified
32. SECURITY CLASS. (When Data Entered)	Unclassified
33. SECURITY CLASS. (When Data Entered)	Unclassified
34. SECURITY CLASS. (When Data Entered)	Unclassified
35. SECURITY CLASS. (When Data Entered)	Unclassified
36. SECURITY CLASS. (When Data Entered)	Unclassified
37. SECURITY CLASS. (When Data Entered)	Unclassified
38. SECURITY CLASS. (When Data Entered)	Unclassified
39. SECURITY CLASS. (When Data Entered)	Unclassified
40. SECURITY CLASS. (When Data Entered)	Unclassified
41. SECURITY CLASS. (When Data Entered)	Unclassified
42. SECURITY CLASS. (When Data Entered)	Unclassified
43. SECURITY CLASS. (When Data Entered)	Unclassified
44. SECURITY CLASS. (When Data Entered)	Unclassified
45. SECURITY CLASS. (When Data Entered)	Unclassified
46. SECURITY CLASS. (When Data Entered)	Unclassified
47. SECURITY CLASS. (When Data Entered)	Unclassified
48. SECURITY CLASS. (When Data Entered)	Unclassified
49. SECURITY CLASS. (When Data Entered)	Unclassified
50. SECURITY CLASS. (When Data Entered)	Unclassified
51. SECURITY CLASS. (When Data Entered)	Unclassified
52. SECURITY CLASS. (When Data Entered)	Unclassified
53. SECURITY CLASS. (When Data Entered)	Unclassified
54. SECURITY CLASS. (When Data Entered)	Unclassified
55. SECURITY CLASS. (When Data Entered)	Unclassified
56. SECURITY CLASS. (When Data Entered)	Unclassified
57. SECURITY CLASS. (When Data Entered)	Unclassified
58. SECURITY CLASS. (When Data Entered)	Unclassified
59. SECURITY CLASS. (When Data Entered)	Unclassified
60. SECURITY CLASS. (When Data Entered)	Unclassified
61. SECURITY CLASS. (When Data Entered)	Unclassified
62. SECURITY CLASS. (When Data Entered)	Unclassified
63. SECURITY CLASS. (When Data Entered)	Unclassified
64. SECURITY CLASS. (When Data Entered)	Unclassified
65. SECURITY CLASS. (When Data Entered)	Unclassified
66. SECURITY CLASS. (When Data Entered)	Unclassified
67. SECURITY CLASS. (When Data Entered)	Unclassified
68. SECURITY CLASS. (When Data Entered)	Unclassified
69. SECURITY CLASS. (When Data Entered)	Unclassified
70. SECURITY CLASS. (When Data Entered)	Unclassified
71. SECURITY CLASS. (When Data Entered)	Unclassified
72. SECURITY CLASS. (When Data Entered)	Unclassified
73. SECURITY CLASS. (When Data Entered)	Unclassified
74. SECURITY CLASS. (When Data Entered)	Unclassified
75. SECURITY CLASS. (When Data Entered)	Unclassified
76. SECURITY CLASS. (When Data Entered)	Unclassified
77. SECURITY CLASS. (When Data Entered)	Unclassified
78. SECURITY CLASS. (When Data Entered)	Unclassified
79. SECURITY CLASS. (When Data Entered)	Unclassified
80. SECURITY CLASS. (When Data Entered)	Unclassified
81. SECURITY CLASS. (When Data Entered)	Unclassified
82. SECURITY CLASS. (When Data Entered)	Unclassified
83. SECURITY CLASS. (When Data Entered)	Unclassified
84. SECURITY CLASS. (When Data Entered)	Unclassified
85. SECURITY CLASS. (When Data Entered)	Unclassified
86. SECURITY CLASS. (When Data Entered)	Unclassified
87. SECURITY CLASS. (When Data Entered)	Unclassified
88. SECURITY CLASS. (When Data Entered)	Unclassified
89. SECURITY CLASS. (When Data Entered)	Unclassified
90. SECURITY CLASS. (When Data Entered)	Unclassified
91. SECURITY CLASS. (When Data Entered)	Unclassified
92. SECURITY CLASS. (When Data Entered)	Unclassified
93. SECURITY CLASS. (When Data Entered)	Unclassified
94. SECURITY CLASS. (When Data Entered)	Unclassified
95. SECURITY CLASS. (When Data Entered)	Unclassified
96. SECURITY CLASS. (When Data Entered)	Unclassified
97. SECURITY CLASS. (When Data Entered)	Unclassified
98. SECURITY CLASS. (When Data Entered)	Unclassified
99. SECURITY CLASS. (When Data Entered)	Unclassified
100. SECURITY CLASS. (When Data Entered)	Unclassified

CONTENTS

	PAGE
INTRODUCTION -----	1
DISCUSSION -----	1
MAP -----	2
TABLES	
1. Surface Observations Taken at 0930 MDT at LC-33 -----	3
2. Anemometer-Measured Wind Speed and Direction, LC-33 Fixed Pole, Taken at 0930 MDT -----	4
3. Anemometer-Measured Wind Speed and Direction, Tower Levels 1, 2, 3, and 4, Taken at 0930 MDT -----	5
4. Pilot-Balloon-Measured Wind Data at 0920 MDT -----	6-7
5. Pilot-Balloon-Measured Wind Data at 0930 MDT -----	8-9
6. SMR Significant Level Data at 0845 MSD -----	10
7. SMR Upper Air Data at 0845 MST -----	11-12
8. SMR Mandatory Levels at 0845 MST -----	13
9. SMR MRN Mandatory Levels at 0845 MST -----	14

Accession For	
NTIS GRA&I	<input checked="checked" type="checkbox"/>
DDC TAB	<input type="checkbox"/>
Unannounced Justification	<input type="checkbox"/>
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or special
A	

INTRODUCTION

19702A GSRS, Missile Number 388, Round Number B-17, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0930 MDT, 30 May 1979. The scheduled launch time was 0930 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from RAPTS T-9 pibal observation at:

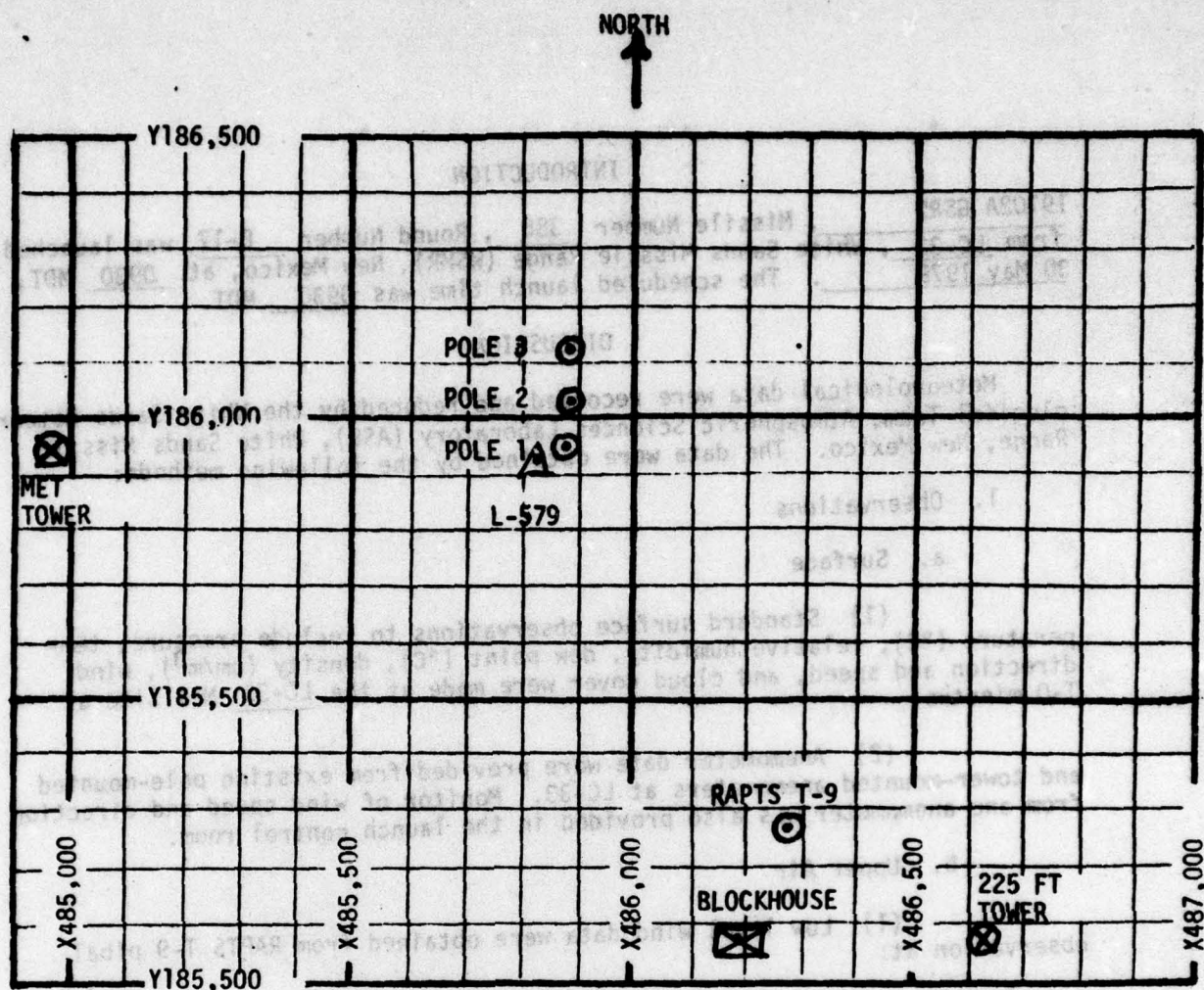
SITE AND ALTITUDE

LC-33 1020 meters (30-meter increments) 0920 MDT and 0930 MDT

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 28,000 feet in 500-foot increments.

SITE AND TIME

SMR 0845 MST



1. MET TOWER - 4 Bendix Model T-120 Anemometers at 12 ft, 62 ft, 102 ft and 202 ft with E/A recorders.
2. POLE ANEMOMETER - Bendix Model T-120 with E/A recorders.
 - (a) Pole #1 - 38.7 ft
 - (b) Pole #2 - 53.0 ft
 - (c) Pole #3 - 83.6 ft
3. 225 FT WIND TOWER - 5 Bendix Model T-120 Anemometers at 35 ft, 88 ft, 128 ft, 168 ft and 200 ft with 5 X-Y visual indicators in Blockhouse.
4. RAPTS T-9 - Radar Automatic Pilot-Balloon Tracking System T-9 Radar

TABLE 1. SURFACE OBSERVATIONS TAKEN AT 0930 MDT,
30 MAY 1979 AT LC-33, 19702A GSRS,
MISSILE NO. 388, ROUND NO. B-17

ELEVATION	3977.30	FT/MSL
PRESSURE	879.5	MBS
TEMPERATURE	26.5	°C
RELATIVE HUMIDITY	27	%
DEW POINT	5.9	°C
DENSITY	1018	GM/M ³
WIND SPEED	07	MPH
WIND DIRECTION	060	DEGREES
CLOUD COVER	1	Cu
CLOUD COVER	1	Ac

TABLE 2. LC-33 FIXED POLE ANEMOMETER-MEASURED WINDS

POLE #1			POLE #2			POLE #3		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	013	11.0	-30	008	11.0	-30	020	12.0
-20	022	11.0	-20	012	11.0	-20	017	13.0
-10	015	12.0	-10	020	10.0	-10	015	12.0
0.0	010	11.0	0.0	022	11.0	0.0	015	13.0
+10	006	11.0	+10	018	12.0	+10	015	12.0

Type 19702A GSRS, Missile No. 388, Round No. B-17 launched
from LC-33 on 30 May 1979 at 0930 MDT.

POLE #1 = X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL

POLE #2 = X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL

POLE #3 = X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL

NOTE: Wind directions are referenced to the firing azimuth _____
or true north true north.

TABLE 3. LC-33 METEOROLOGICAL TOWER ANEMOMETER-MEASURED WINDS (202 FT. TOWER)

LEVEL #1 12 ft.			LEVEL #2 62 ft.		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	009	10	-30	018	11
-20	015	09	-20	360	09
-10	015	07	-10	360	07
0.0	012	06	0.0	016	08
+10	002	07	+10	009	10
LEVEL #3 102 ft.			LEVEL #4 202 ft.		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	008	05	-30	010	11
-20	360	02	-20	010	13
-10	009	02	-10	002	11
0.0	012	04	0.0	003	12
+10	009	06	+10	020	12

WTSM Coordinates: X484,982.64 Y185,957.73 H3983.00 (base)

Type 19702A GSRS, Missile No. 388, Round No. B-17 launched
 from LC-33 on 30 May 1979 at 0930 MDT.

NOTE: Wind directions are referenced to the firing azimuth _____
 or true north true north.

TABLE 4. PILOT-BALLOON-MEASURED WIND DATA (30-METER INCREMENTS)

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
SFC	050	6.0
30	048	3.0
60	Calm	
90	056	0.5
120	067	1.0
150	045	7.5
180	023	14.0
210	018	14.5
240	013	14.5
270	010	13.5
300	007	12.0
330	008	12.5
360	008	13.0

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
390	009	12.0
420	009	10.5
450	010	11.5
480	010	12.0
510	009	11.5
540	008	11.0
570	005	12.0
600	001	12.5
630	357	10.5
660	352	8.0
690	357	8.0
720	001	7.5
750	005	7.0

Release Point Coordinates (WSTM): X486,037.24 Y486,037.24 H3977.30

Released from LC-33 on 30 May 1979 at 0920 MDT.Type 19702A GSRS, Missile No. 388, Round No. B-17 launched from LC-33 on 30 May 1979 at 0930 MDT.NOTE: Wind directions are referenced to the firing azimuth or true north true north.

TABLE 2. PILOT-BALLOON-MEASURED WIND DATA (30-METER INCREMENTS)

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
780	009	6.0
810	009	6.5
840	009	6.5
870	005	7.0
900	360	7.0
930	354	6.5
960	348	5.5
990	345	6.0
1020	342	6.5
1050		
1080		
1110		
1140		
1170		
1200		
1230		
1260		
1290		
1320		
1350		
1380		
1410		

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
1440		
1470		
1500		
1530		
1560		
1590		
1620		
1650		
1680		
1710		
1740		
1770		
1800		
1830		
1860		
1890		
1920		
1950		
1980		
2010		
2040		
2070		

TABLE 5. PILOT-BALLOON-MEASURED WIND DATA (30-METER INCREMENTS)

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
SFC	060	7.0
30	030	6.0
60	359	5.0
90	360	7.5
120	001	10.0
150	001	12.0
180	360	13.5
210	360	13.5
240	360	13.5
270	003	13.5
300	006	13.0
330	001	13.5
360	355	14.0

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
390	360	13.0
420	005	12.0
450	358	13.5
480	351	14.5
510	357	15.5
540	002	16.5
570	005	14.5
600	007	12.0
630	360	12.5
660	353	13.0
690	349	11.0
720	344	9.0
750	355	8.0

Release Point Coordinates (WSTM): X486,037.24 Y486,037.24 H3977.30
 Released from LC-33 on 30 May 1979 at 0930 MDT.

Type 19702A GSRS, Missile No. 388, Round No. B-17 launched
 from LC-33 on 30 May 1979 at 0930 MDT.

NOTE: Wind directions are referenced to the firing azimuth
 or true north true north.

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
780	005	6.5
810	005	7.0
840	004	7.0
870	001	6.5
900	357	6.0
930	353	7.0
960	348	8.0
990	347	7.0
1020	346	6.0
1050		
1080		
1110		
1140		
1170		
1200		
1230		
1260		
1290		
1320		
1350		
1380		
1410		

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
1440		
1470		
1500		
1530		
1560		
1590		
1620		
1650		
1680		
1710		
1740		
1770		
1800		
1830		
1860		
1890		
1920		
1950		
1980		
2010		
2040		
2070		

STATION ALTITUDE 3997.30 FEET MSL
30 MAY 79
ASCENSION NO. 158

SIGNIFICANT LEVEL DATA
150000158
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
876.3 3997.3	27.6 5.2	24.0
859.3 4562.0	23.5 .6	22.0
850.0 4873.2	23.1 .9	23.0
700.0 10260.4	7.9 -3.0	46.0
663.8 11711.2	4.4 -6.8	44.0
616.8 13658.2	-9 -10.5	48.0
548.3 16707.9	-8.0 -18.9	41.0
537.8 17200.9	-9.3 -20.9	38.0
529.8 17582.5	-8.5 -27.4	20.0
513.8 18367.1	-6.7 -28.9	15.0
500.0 19064.8	-7.7 -29.8	15.0
458.3 21271.9	-12.6 -33.1	16.0
400.0 24628.3	-21.8 -38.6	20.0
344.6 28159.4	-31.2 -46.6	20.0

HEIGHT METERS ACFT	DIRECTION DEGREES	SPEED MPH
780	008	6.8
810	008	7.0
840	008	7.0
870	001	6.8
900	387	6.8
930	388	7.0
960	388	8.0
980	347	7.0
1020	346	6.0
1080		
1110		
1140		
1170		
1200		
1230		
1260		
1290		
1320		
1350		
1380		
1410		

STATION ALTITUDE 3997.30 FEET MSL
30 MAY 79 0845 HRS MST
ASCENSION NO. 158

UPPER AIR DATA
1500060150
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES C	TEMPERATURE DEWPOINT C	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3997.3	876.3	27.6	5.2	24.0	1011.2	676.9		300.0	8.0
4000.0	876.2	27.6	5.2	24.0	1011.1	676.9			1.000262
4500.0	861.2	24.0	1.1	22.2	1006.8	672.5			1.000262
5000.0	843.1	22.7	.9	23.3	993.5	671.1			1.000253
5500.0	831.1	21.3	.9	25.7	980.2	669.5			1.000250
6000.0	816.3	19.9	.8	27.8	967.4	667.9			1.000247
6500.0	801.8	18.5	.6	29.9	954.7	666.3		350.6	1.000244
7000.0	787.5	17.1	.3	32.0	942.3	664.7		348.3	1.000241
7500.0	773.5	15.7	-.0	34.2	930.0	663.1		344.3	1.000238
8000.0	759.7	14.3	-.4	36.3	918.0	661.5		339.9	1.000235
8500.0	746.2	12.9	-.9	38.4	906.1	659.9		325.1	1.000232
9000.0	732.9	11.5	-1.4	40.6	894.4	658.2		310.1	1.000228
9500.0	719.9	10.1	-2.0	42.7	883.0	656.6		297.8	1.000225
10000.0	707.1	8.7	-2.6	44.8	871.6	654.9		292.5	1.000222
10500.0	694.3	7.4	-3.6	45.7	860.1	653.3		290.8	1.000218
11000.0	681.6	6.1	-4.9	45.0	848.1	651.8		289.9	1.000214
11500.0	669.0	4.9	-6.2	44.3	836.3	650.3		291.0	1.000210
12000.0	656.6	3.6	-7.3	44.6	824.8	648.6		293.1	1.000205
12500.0	644.3	2.3	-8.3	45.6	813.5	647.1		290.9	1.000201
13000.0	632.3	.9	-9.2	46.6	802.3	645.5		297.0	1.000198
13500.0	620.5	-.5	-10.2	47.7	791.4	643.9		293.1	1.000194
14000.0	608.7	-1.7	-11.4	47.2	779.9	642.4		285.5	1.000191
14500.0	597.1	-2.9	-12.8	46.1	768.4	640.9		269.6	1.000187
15000.0	585.7	-4.0	-14.2	44.9	757.1	639.5		257.4	1.000183
15500.0	574.5	-5.2	-15.6	43.8	746.0	638.1		249.2	1.000179
16000.0	563.5	-6.4	-16.9	42.6	735.0	636.7		246.5	1.000176
16500.0	552.7	-7.5	-18.3	41.5	724.1	635.3		246.2	1.000172
17000.0	542.1	-8.6	-20.1	39.2	713.6	633.7		247.3	1.000169
17500.0	531.5	-8.7	-25.6	23.9	699.7	633.7		250.5	1.000166
18000.0	521.2	-7.5	-28.1	17.3	683.3	633.1		254.8	1.000160
18500.0	511.1	-6.9	-29.1	15.0	668.5	635.8		259.8	1.000155
19000.0	501.3	-7.6	-29.7	15.0	657.4	635.0		263.0	1.000152
19500.0	491.5	-8.7	-30.4	15.2	647.1	633.7		263.6	1.000149
20000.0	481.9	-9.8	-31.2	15.4	637.2	632.3		267.0	1.000147
20500.0	472.5	-10.9	-31.9	15.7	627.4	631.0		265.6	1.000144
21000.0	463.2	-12.0	-32.7	15.9	617.7	629.7		265.2	1.000142
21500.0	454.1	-13.2	-33.5	16.3	608.4	628.2		262.8	1.000138
22000.0	445.0	-14.6	-34.2	16.9	599.4	626.5		260.4	1.000135
22500.0	436.0	-16.0	-35.0	17.5	590.5	624.8		260.4	1.000133
23000.0	427.3	-17.3	-35.8	18.1	581.7	623.2		261.5	1.000131

XX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

THIS PAGE IS BEST QUALITY PRACTITIONER
FROM COPY FURNISHED TO DDC

STATION ALTITUDE 3997.30 FEET MSL
30 MAY 79 0845 HRS MST
ASCENSION NO. 158

GEOMETRIC ALTITUDE	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM./CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TH)	SPEED KNOTS	INDEX OF REFRACTION
2500.0	418.7	-18.7	18.7	573.1	621.5	264.3	26.6	1.000129
2400.0	410.3	-20.1	19.3	564.7	619.8	260.7	26.9	1.000127
2500.0	402.1	-21.4	19.6	556.4	618.1	269.2	26.1	1.000125
2500.0	393.9	-22.8	20.3	547.8	616.5	270.3	24.9	1.000123
2500.0	385.6	-24.1	20.0	539.3	614.8	271.0	23.7	1.000121
2600.0	377.6	-25.5	20.0	530.9	613.2	272.7	23.9	1.000119
2650.0	369.7	-26.8	20.0	522.7	611.5	274.5	24.3	1.000117
2700.0	362.0	-28.1	20.0	514.6	609.9	277.1	22.8	1.000115
2750.0	354.5	-29.4	20.0	506.7	608.2			1.000114
2800.0	347.1	-30.8	20.0	498.9	606.5			1.000112

THIS PAGE IS BEST QUALITY PRINTING
FROM COPY FURNISHED TO DDC

STATION ALTITUDE 3937.30 FEET MSL
30 MAY 79 0845 HRS MST
ASCENSION NO. 158

MANDATORY LEVELS
1500060130
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEW POINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4870.	23.1	.9	23.	9999.0	9999.0XX
800.0	6587.	18.4	.6	30.	350.1	7.1
750.0	8324.	13.3	-.8	34.	329.0	9.7
700.0	10270.	7.9	-3.0	40.	291.5	17.5
650.0	12259.	2.9	-7.8	45.	295.0	16.2
600.0	14364.	-2.6	-12.5	40.	272.8	13.3
550.0	16607.	-7.8	-18.7	41.	246.5	22.6
500.0	19038.	-13.8	-29.8	13.	261.5	25.1
450.0	21697.	-21.8	-38.0	20.	259.7	25.9
400.0	24587.	-30.3	-45.8			
350.0	27759.					

STATION ALTITUDE 3997.30 FEET MSL
30 MAY 79 0845 HRS MST
ASCENSION NO. 158

WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.